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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,714	10/03/2000	Arnaud Vilbert	5725.0622	8388

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
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WASHINGTON, DC 20001-4413

EXAMINER

WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

MAIL DATE	DELIVERY MODE
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07/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/582,714

Applicant(s)

VILBERT, ARNAUD

Examiner

Shengjun Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 25, 2007 has been entered.

Claim Rejections 35 U.S.C. 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al. (USPN 6106808) in view of Ramin et al. (USPN 5683681), Samain et al. (WO 98/22077, US 6,423,297 is the English equivalence) and Mougin et al. (WO 97/25021, US 6,395,265 is the English equivalence).

3. Bhatt et al. discloses the administration of a composition comprising (1) a polyurethane resin (a polycondensate of polyoxyethylene diol, diethylene glycol, dimethylolpropionic acid, and methylene bis-cyclohexyl-4-4'-diisocyanate), Gantrez A425 (a partial butyl ester of vinylmethylether/maleic anhydride copolymer); AMP; ethanol (a cosmetically acceptable medium); and water for setting hair (col. 4, lines 3-18; col. 14, lines 37-61; col. 26, line 50-col. 27, line 29; Table 8). Bhatt et al. teaches that the compositions of the invention provide spray

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particle sizes of about 20 to 150 microns and that either a pump spray or an aerosol may be used (col. 4, line 20-col. 5, line 15).

4. Bhatt et al. does not specifically teach a spray wherein the hair composition has an average diameter of less than or equal to 80 microns. Furthermore, Bhatt et al. does not specifically teach that the composition administered therein comprises a film-forming polymer in addition to the polyurethane or the polyurethane has polysiloxane segment, or the other particular film forming agent with carboxylic acid group.

5. Ramin et al. teaches that butyl esters of vinylmethylether/maleic anhydride copolymers are film-forming polymers (col. 2, lines 31-44). Samain et al. teaches that the particular film forming herein, i.e. VS80, (which contain acrylic acid moieties, see, example 1, at page 37 of the specification and the remarks of species election submitted 8/16/2001, and 10/24/2001) is particularly useful for aerosol hair fixing composition as fixing polymer or film-forming polymer. See, particularly, example 1 in US 6,423,297. Mougin et al. teach block copolymers of polyurethane and polysiloxane, which are particularly useful as film forming, or additive to a film-forming agent for hair treatment. The copolymer provides superior properties over known film forming agents in hair products. The copolymers may be used in any forms of conventional hair products, such as aerosol. See, particularly, the abstract, col. 2, lines 56-65; col. 10, lines 14-58; col. 11, lines 5-30, and the claims (claim 54 in particular) in US 6,395,265.

6. Accordingly, Bhatt et al. teaches administration of a composition comprising a polycondensate polyurethane; a film-forming polymer', and a cosmetically acceptable medium in a particle size of between 20 and 150 microns from either a pump spray container or an aerosol container for setting (holding) hair.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to modify Bhatt's method by incorporating the copolymer disclosed by Mougin et al. and the anionic polymer disclosed by Samain et al in the hair composition, or substituting the polyurethane with the copolymer and other known film forming agent such as those disclosed by Ramin.

A person of ordinary skill in the art would have been motivated to modify Bhatt's method by incorporating the copolymer disclosed by Mougin et al. and the anionic polymer disclosed by Samain et al in the hair composition, or substituting the polyurethane with the copolymer and other known film forming agent such as those disclosed by Ramin because the copolymers disclosed by Mougin et al, and as herein claimed, are known to provide superior properties as film forming agent or film forming additive for hair products and is particularly known to be useful in aerosol form. Similarly, the anionic polymer disclosed by Samain et al. is also known to provide superior properties as film forming agent or film forming additive for hair products and is particularly known to be useful in aerosol form. As to the droplet size, it is noted that the 80 microns as herein claimed overlaps with the droplet size of 20 to 150 microns taught by Bhatt et al. One would have been motivated to administer the composition from Bhatt et al. from either a pump spray or aerosol container in a particle size less than or equal to 80 microns because of an expectation of success in imparting good hair setting retention and achieving a natural feel to the sprayed hair, as taught by Bhatt et al. (col. 4, lines 3-18). Note it is well settled that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Further, the optimization of a result effective parameter, e.g., the

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droplet size of aerosol, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mougin et al. (WO 97/25021, or its' English equivalence, US 6,395,265,) and Samain et al. (WO 98/22077; US 6,423,297 is the English equivalence), in further view of Bhatt et al. (USPN 6106808), and Malawer et al. (US 5,458,871)

8. Mougin et al. teach block copolymers of polyurethane and polysiloxane, which are particularly useful as film forming, or additive to a film-forming agent for hair treatment. The copolymer provides superior properties over known film forming agents in hair products. The copolymers may be used in any forms of conventional hair products, such as aerosol. See, particularly, the abstract, col. 2, lines 56-65; col. 10, lines 14-58; col. 11, lines 5-30, and the claims (claim 54 in particular) in US 6,395,265. Samain et al. teaches that the particular film forming herein, i.e. VS80, (which contain acrylic acid moieties, see, example 1, at page 37 of the specification and the remarks of species election submitted 8/16/2001, and 10/24/2001) is particularly useful for aerosol hair fixing composition as fixing polymer or film-forming polymer. See, particularly, example 1 in US 6,423,297.

9. Mougin et al. do not teach expressly treating hair with a particular aerosol device comprising both polymeric materials and wherein 80 um droplets are generated.

10. However, Bhatt et al. teaches that the hair spray compositions provide spray particle sizes of about 20 to 150 microns and that either a pump spray or an aerosol may be used (col. 4, line 20-col. 5, line 15). Malawer et al. disclosed that for hair spray it is generally considered in the art

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that small droplet is desirable. See, column 1, lines 14-35. Such evidences would fairly support that droplet size in hair spray method is considered as result effect parameters.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, to prepare a hair style aerosol composition with the block copolymer of Mougín et al. and with the anionic polymer disclosed by Samain et al. as additional film forming agent, in a device so that a optimal and desirable droplet size would be generated. First, it is prima facie obvious to combine two compositions each of which is taught in the prior art to be useful for same purpose in order to form third composition that is to be used for very the same purpose; idea of combining them flows logically from their having been individually taught in prior art; thus, the claimed invention which is a combination of two known hair fixing polymer for processing hair sets forth prima facie obvious subject matter. See In re Kerkhoven, 205 USPQ 1069. Further, it is well settled that “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Further, the optimization of a result effective parameter, e.g., the droplet size of aerosol, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

Response to the Argument

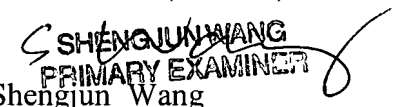
Applicants’ amendments and remarks submitted February 13, 2007 have been entered and fully considered. The remarks are moot in view of the new ground of rejection. Particularly the superior properties of the particular polymers herein are known in the art as hair fixing polymers and provide strong motivation to one of ordinary skill in the art to combine the teaching of the references.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SHENGJUN WANG
PRIMARY EXAMINER
Shengjun Wang
Primary Examiner
Art Unit 1617